
COVID-19 - Exposure

Office Hours Telehealth Triage Protocols | Pediatric | 2021

DEFINITION

- Exposed (close contact) to a person who has been diagnosed (confirmed by testing) or suspected to have COVID-19
- Person is well and has NO COVID-19 associated symptoms (cough, fever, shortness of breath or others). For symptomatic suspected COVID-19 patients, use the COVID-19 Diagnosed or Suspected protocol.
- Also included: Questions about COVID-19
- **Updated: August 30, 2021**

CONTACT (EXPOSURE) to COVID-19 Definition: Higher Risk

- **Household Close Contact.** Lives with a person who has positive test for COVID-19. This carries the highest risk of transmitting the infection.
- **Other Close Contact.** Close contact includes kissing, hugging or sharing eating and drinking utensils. It also includes close conversations. Direct contact with secretions of a person with COVID-19 is also close contact. Includes being in the same childcare room, classroom or carpool. These exposures are usually lower risk than living with an infected person.

NOT CLOSE CONTACT - Low Risk Exposure:

- Walking by a person who has COVID-19 carries no risk.
- Being outdoors and observing safe distancing (greater than 6 feet). Outdoor contacts are much safer than indoor contacts.
- Being in the same school, workplace, place of worship or building as ONE person with COVID-19 carries a small risk. This risk increases once multiple people in that setting develop COVID-19.

COVID-19 Fully Vaccinated Exposed Patients who are Asymptomatic

- COVID-19 vaccines approved by the FDA are highly effective. Research data has confirmed that protective antibody levels are still high at 9 months for most people after completing the vaccine series.
- However, some may develop a mild breakthrough infection.
- Note: A **fully vaccinated** patient means 2 weeks have passed since the final dose. A **partially vaccinated** patient means incomplete vaccine series or less than 2 weeks have passed since final dose.
- **Fully vaccinated symptomatic** people with known or possible exposure should be tested at the time they start showing symptoms.
- **Fully vaccinated asymptomatic** people who have close contact with COVID-19 should be tested 3-5 days after exposure and wear a mask in public indoor settings for 14 days or until they receive a negative test result. No home quarantine is needed. (CDC recommendations)

TRIAGE ASSESSMENT QUESTIONS

See More Appropriate Protocol

Positive COVID-19 test

[Go to Protocol: COVID-19 - Diagnosed or Suspected \(Pediatric\)](#)

[1] Symptoms of COVID-19 (cough, SOB or others) AND [2] diagnosed by HCP has having COVID-19

Go to Protocol: COVID-19 - Diagnosed or Suspected (Pediatric)

[1] Symptoms of COVID-19 (cough, SOB or others) AND [2] recent household exposure to known influenza (flu test positive)

Go to Protocol: Influenza (Flu) - Seasonal (Pediatric)

[1] Symptoms of COVID-19 (cough, SOB or others) AND [2] lives in an area with community spread

Go to Protocol: COVID-19 - Diagnosed or Suspected (Pediatric)

[1] Symptoms of COVID-19 (cough, SOB or others) AND [2] within 14 days of close contact with confirmed or suspected COVID-19 patient

Go to Protocol: COVID-19 - Diagnosed or Suspected (Pediatric)

[1] Symptoms of COVID-19 AND [2] lives in area or has recently traveled to an area with high community spread

Go to Protocol: COVID-19 - Diagnosed or Suspected (Pediatric)

[1] Difficulty breathing (or shortness of breath) AND [2] onset > 14 days after COVID-19 exposure (Close Contact) AND [3] no community spread where patient lives

Go to Protocol: Breathing Difficulty (Respiratory Distress) (Pediatric)

[1] Cough AND [2] onset > 14 days after COVID-19 exposure AND [3] no community spread where patient lives

Go to Protocol: Cough (Pediatric)

[1] Common cold symptoms AND [2] onset > 14 days after COVID-19 exposure AND [3] no community spread where patient lives

Go to Protocol: Colds (Pediatric)

COVID-19 vaccine reactions or questions

Go to Protocol: Immunization Reactions (Pediatric)

Discuss With PCP and Callback by Nurse Today

[1] Close Contact COVID-19 Exposure within last 14 days BUT [2] COVID-19 vaccine series completed (fully vaccinated)

Reason: PCP will decide if COVID-19 testing is needed.

[1] Close Contact COVID-19 Exposure of unvaccinated or partially vaccinated child within last 14 days BUT [2] NO symptoms

Reason: Home quarantine is needed if NOT fully vaccinated. COVID-19 test is recommended.

[1] Close Contact COVID-19 Exposure within last 14 days AND [2] needs COVID-19 test to return to work or school AND [3] NO symptoms

Reason: PCP will discuss testing.

[1] School notification about school "exposure" to COVID-19 AND [2] unknown if true close contact occurred AND [3] school requesting test to come back AND [4] NO symptoms

Reason: PCP will discuss testing.

[1] Unvaccinated or partially vaccinated child was at a large, crowded event within the last 14 days AND [2] caller wants COVID-19 test AND [3] NO symptoms

Reason: PCP will discuss testing.

See in Office Within 3 Days

Triager thinks child needs to be seen for non-urgent problem

Caller wants child seen for non-urgent problem

Home Care

[1] Close Contact COVID-19 Exposure 15 or more days ago AND [2] NO symptoms

Reason: Asymptomatic for 14 days. Risk of developing COVID-19 infection has passed. Reassure and discontinue isolation.

[1] Living in or travel from high risk area for COVID-19 community spread as identified by the Public Health Department (PHD) BUT [2] NO symptoms

Reason: Follow local PHD directives regarding staying at home, etc.

Caller concerned that COVID-19 exposure occurred BUT does not meet CDC criteria for close contact

Reason: No exposure and needs reassurance

COVID-19 testing, questions about

COVID-19 prevention, questions about

COVID-19 Disease, questions about

Note: Refer most callers to CDC website: www.cdc.gov/coronavirus

Multisystem Inflammatory Syndrome (MIS-C), questions about

HOME CARE ADVICE

COVID-19 Close Contact Exposed Person with No Symptoms

- Reassurance and Education - Close Contact, Unvaccinated or Partially Vaccinated and No Symptoms, but Less than 14 Days:**
 - Although your child may have been or was exposed to COVID-19, your child does not currently have any symptoms of this infection. COVID-19 infections start within 14 days following the last exposure.
 - Since it's been less than 14 days, your child is still at risk for getting sick with it.
 - **Home Quarantine:** Keep your child on home quarantine for 10 days to protect others (CDC). If you have further questions about when it is safe to return to school or work, call us back.
 - **Monitor for Symptoms until 14 Days from Last Exposure:** Check your child's temperature two times a day. Watch for symptoms of COVID-19.
 - **Get Tested:** A person who had a COVID-19 exposure and is asymptomatic should get a COVID-19 test immediately (within 24 hours). If the test is negative, the test should be repeated 5 to 7 days after exposure. Test sooner if symptoms develop. (CDC recommendations)
 - **Wear a Mask:** Wear a mask if you must be around other people.
 - Follow local, state or provincial Department of Health directives.
- Reassurance and Education - Close Contact, Fully Vaccinated and No Symptoms, but Less than 14 Days:**
 - You have told me that your child is fully vaccinated against COVID-19 and 2 weeks have passed since the final vaccine dose.

- The risk of getting infected is low.
 - **Home Quarantine is NOT needed.**
 - **Monitor for Symptoms 14 Days after the Last Exposure:** Check your child's temperature two times a day. Watch for symptoms of COVID-19.
 - **Get Tested:** A fully vaccinated person who had a COVID-19 exposure and is asymptomatic should get a COVID-19 test about 3 to 5 days after exposure (CDC). Test sooner if symptoms develop.
 - **Wear a Mask:** Wear a mask if you must be around other people until you get a negative test result.
 - Follow local, state or provincial Department of Health directives.
3. **Measure Temperature:**
 - Measure your child's temperature 2 times each day.
 - Do this until 14 days after exposure to COVID-19.
 - If fever occurs, call back.
 4. **Watch for Other COVID-19 Symptoms:**
 - COVID-19 coronavirus most often causes a respiratory illness. The most common symptoms are cough, fever and shortness of breath.
 - Other common symptoms are chills, shivering (shaking), runny nose, sore throat, muscle pain, headache, fatigue and loss of smell or taste.
 - The CDC also includes the following less common symptoms: nausea, vomiting and diarrhea.
 - A rare symptom is red or purple toes ("COVID toes").
 - If any of these symptoms occur, call back.
 - Early detection of symptoms and home isolation is the only way to reduce spread of the disease.
 5. **Quarantine (Isolation) at Home Recommendations:**
 - *Isolation will definitely be needed if your child develops a cough or fever within 14 days of COVID-19 exposure or has a positive COVID test with no symptoms.*
 - For unvaccinated/partially vaccinated patients without symptoms, home quarantine also is usually required for 10 days. Period of quarantine starts on the date of last exposure and usually goes for 10 days.
 - Shorter quarantine option for asymptomatic people: If they get a negative COVID-19 lab test on day 5 to 7 after exposure, can leave quarantine after day 7. (CDC). This helps essential workers return to the work force.
 - **Exception:** Quarantine not needed following exposure for asymptomatic parents or children who completed their COVID-19 vaccine series. (CDC)
 - Follow the current directives of your local health department or the CDC.
 - Keep your child at home. Do Not go to stores, restaurants, places of worship or other public places. Avoid public transportation or ride sharing. Do Not allow any visitors (such as friends).
 - **Exception:** Leave the house only if you need to seek medical care. For routine medical appointments, check with your PCP or specialist first. They may want to re-schedule you. Always wear a mask.
 - Home isolation of younger children can be very difficult. Many families also have limited options. Therefore, each triager should individualize the recommendations for isolation after discussing it with the caller.
 - **Isolation Questions for PCP - Note to Triager:** Home isolation can be complicated. A parent may need to return to work. Someone in the household may be elderly or have a serious medical problem. If a caller has additional questions, involve the PCP.
 6. **Day 15 or Later After Close Contact and No Symptoms:**
 - The COVID-19 infection starts within 14 days of an exposure.
 - Your child developed no symptoms of respiratory infection (such as fever or cough) during the 14 days after an exposure.

- Your child should be safe from getting COVID-19 from this exposure.
- If your child has been on home quarantine (isolation), it can be discontinued.

7. **Call Back If:**

- Fever occurs within 14 days of COVID-19 exposure
- Cough or difficulty breathing occur within 14 days of COVID-19 exposure
- Other symptoms of COVID-19 infection occur
- You have other questions

COVID-19 Testing Questions

1. **COVID-19 Testing - Who Needs It:**

- Note to Triager: Follow the policy for testing recommended by your practice.
- If COVID-19 is suspected, getting a lab test is the only way to know for sure. Getting the test is not urgent.
- Testing is now widely available. Where to get it can be different for every community.
- In addition to hospital labs and some offices, many retail clinics and urgent care centers can also perform COVID-19 testing. Even pharmacies (such as CVS and Walgreens) now perform drive-thru testing on children age 3 and older. Testing is also available at some local and state public health departments. Self- tests (such as Abbot BinaxNow) for use at home are now available in some drugstores (such as CVS, Walgreens).

2. **COVID-19 Testing Facts:**

- Here are some facts that may answer some of the caller's questions.
- **Diagnostic Tests:** These are performed on nasal or mouth secretions. The test can tell us if you have a COVID-19 infection now. Your doctor is the best resource for up-to-date information on diagnostic testing. Timing is important on when to do diagnostic tests.
- **COVID-19 Diagnostic Tests - Recommended Timing (CDC Recommendations):**
- **Symptomatic patients** - get a test immediately or at least within 3 days of onset of symptoms.
- **Asymptomatic Unvaccinated or Partially Vaccinated Patients with a COVID-19 close contact** - Get a COVID-19 test immediately (within 24 hours). If the test is negative, the test should be repeated 5 to 7 days after exposure. Test sooner if symptoms develop.
- **Asymptomatic Fully Vaccinated Patients with a COVID-19 close contact** - Get a test on day 3 to 5 after exposure. Test sooner if symptoms develop.
- **Antibody Tests:** These tests are different. These are performed on blood. They can sometimes tell us if there are antibodies from a previous infection. Discuss if this test would be helpful with your doctor.
- **Timing guideline for Antibody Tests:** If indicated, antibody tests are not recommended until at least 2 or 3 weeks have passed since the start of the infection (CDC). Waiting for a few weeks will give the most accurate result (highest positive rate).

3. **Questions About Rapid COVID-19 Results:**

- Positive rapid test results are accurate and can be trusted.
- Negative rapid test results are usually accurate but can sometimes be wrong.
- An error is more likely with tests performed at home. Rapid tests performed at a test site are usually more accurate.
- Note to Triager: For callers who are worried about a false negative, especially if they had a known exposure, discuss with the PCP.

4. **Repeat Diagnostic Tests - When They are Needed:**

- After a positive test, repeat tests are not recommended. Even after it is safe to stop isolation (usually 10 days), tests may stay positive for up to 90 days. A positive test does not mean the patient can spread the infection once the required isolation period is completed.
- After a negative test, a repeat test is sometimes needed. Reason: A test may be falsely negative; for example, if a person gets the test too soon after exposure. Further, if a person is exposed again or develops symptoms suggestive of COVID-19, then repeat viral testing.

5. **Call Back If:**
- You have other questions

COVID-19 Prevention Questions

1. **COVID-19 - How to Protect Yourself and Family from Catching It - The Basics:**
- Get the COVID-19 vaccine. It is your best protection against this serious infection.
 - **Vaccine Site.** Find a nearby vaccine site at [vaccines.gov](https://www.vaccines.gov). If your doctor's office doesn't supply the vaccine, also look on your state's public health department website.
 - Avoid close contact with people outside your family unit. Avoid closed spaces (indoors) when possible and all crowds (even outdoors).
 - Always wear a mask when you leave your home. Also, observe social (safe) distancing.
 - Everyone 6 months and older should get an annual flu shot. Reason: Getting COVID-19 while you also have or are recovering from the flu may increase the chances of getting severe symptoms.
 - **Wash hands often with soap and water (very important).** Always do before you eat.
 - Use an alcohol-based hand sanitizer if water is not available. Remember: soap and water work better.
 - Don't touch your eyes, nose or mouth unless your hands are clean. Germs on the hands can get into your body this way.
 - Don't share glasses, plates or eating utensils.
 - No longer shake hands. Greet others with a smile and a nod.
 - If your child needs to be seen for an urgent medical problem, do not hesitate to go in. ERs, urgent care sites and your doctor's office are safe places. They are well equipped to protect you against the virus. For non-urgent conditions, talk to your doctor's office first.
2. **Social (Safe) Distancing and COVID-19 Prevention:**
- Avoid any contact with people known to have COVID-19 infection. Avoid talking to or sitting close to them.
 - **Social (Safe) Distancing:** Try to stay at least 6 feet (2 meters) away from anyone who is sick, especially if they are coughing. Also called physical distancing. Avoid crowds because you can't tell who might be sick.
 - If COVID-19 is widespread in your community, try to stay 6 feet away from everyone outside your family unit.
 - **Stay at Home Orders:** Follow any stay at home (stay in place) orders in your community. Leave your home only for essential needs such as buying food or seeking medical care.
 - **After Stay at Home Orders are Lifted:** Continue social distancing. Also wear a mask when entering any public building or outdoor crowded area. These precautions will be needed for many months. Your state public health department will decide when they are no longer needed.
3. **Face Masks and COVID-19 Prevention:**
- **Overview:** Face masks are essential for reducing the spread of COVID-19. They will also reduce the spread of influenza. People with COVID-19 can have no symptoms, but still spread the virus.
 - Because of the Delta variant (and other possible future variants) recommendations for wearing masks are pretty much the same for people who are vaccinated or unvaccinated. Mask wearing is even more important if you are in an area of high COVID-19 spread or if you have a weak immune system.
- People Who Are Well (Not Sick With COVID-19) Should Wear Masks If:**
- You are in indoor public spaces (such as a church or a grocery store).
 - You are in a crowded outdoor setting (e.g., concert, music festival, rally).
 - You are traveling on a plane, bus, train, or other form of public transportation or in transportation hubs such as airports and train stations.
 - You must be around someone who has symptoms of COVID-19 or has tested positive for COVID-19.
- People Who Are Sick With COVID-19 Must Wear Masks If:**

- You need to leave the home. Example: for medical visits. Patients with trouble breathing in a mask can consider a loose face covering such as a bandana.
- You are around other people or animals (such as pets).

Exceptions to Masks:

- Face coverings are **NOT** recommended for **children under 2 years**.
- Face mask or covering is optional if outdoors and you can avoid being within 6 feet (2 meters) of other people. Some examples are an outdoor walk or run.

4. **Keep Your Body Strong:**

- Get your body ready to fight the COVID-19 virus.
- Get enough sleep (very important)
- Keep your heart strong. Walk or exercise every day. Take the stairs. Caution: Avoid physical exhaustion.
- Stay well hydrated.
- Eat healthy meals. Avoid overeating to deal with your fears.
- Avoid the over-use of anti-fever medicines. Fever fights infections and ramps up your immune system.

5. **Keep Your Mind Positive:**

- **Live in the present, not the future.** The future is where your needless worries live.
- **Stay positive.** Use a mantra to reduce your fears, such as "I am strong".
- **Get outdoors.** Take daily walks. Go to a park if you have one. Being in nature is good for your immune system.
- **Show love.** As long as they are well, hug your children and partner frequently. Speak to them in a kind and loving voice. Love strengthens your immune system.
- **Stay in touch.** Use regular phone calls and video chats to stay in touch with those you love.
- **"2-Household Bubble"**. To reduce social isolation, especially for young children, some families have joined up with one other family for visits. Rules: Both families must agree that they will not have social contacts with any other families. No one in either family can work outside the home. Not approved by CDC but a reasonable family decision.

6. **How to Protect Others - When You or Your Child are Sick:**

- **Stay Home:** Stay home from school or work if you are sick. Your doctor or local health department will tell you when it is safe to return.
- **Cover the Cough:** Cough and sneeze into your shirt sleeve or inner elbow. Don't cough into your hand or the air. If available, sneeze into a tissue and throw it into trash can.
- **Wash Hands often with Soap and Water:** After coughing or sneezing are important times.
- **Don't Share Personal Household Items:** Don't share glasses, plates or eating utensils.
- **Wear a Mask:** Wear a face mask when around others or you go to a medical facility.
- **Avoid High-risk People:** Carefully avoid any contact with the elderly and people with weak immune systems or other chronic health problems.

7. **Call Back If:**

- You have other questions

COVID-19 Disease FAQs

1. **Trusted Sources for Accurate Information - CDC and AAP:**

- To meet the extreme demand for COVID-19 information, when possible, find your answers online. Here are the most reliable websites:
- CDC website: <https://www.cdc.gov/coronavirus>.
- American Academy of Pediatrics parent website: www.healthychildren.org

2. **COVID-19 Cause:**

- It is caused by a new coronavirus: SARS-CoV-2 (COVID-19).
- Viruses change through mutation. New variants of the COVID-19 virus are expected to appear

and spread.

- In the fall of 2021, the Delta variant has become the most common COVID-19 variant.
- The Delta variant spreads much faster than other variants.
- It may cause more severe illness and more hospitalizations.
- The COVID-19 vaccines help protect against the delta variant.
- Infection with COVID-19 Delta variant occurs far less often in people who are vaccinated. When it happens it is called a 'breakthrough' infection. In general, the patient has mild or no symptoms.
- The risk of serious illness and hospitalization is rare compared to a person who is not vaccinated.

3. **COVID-19 Symptoms:**

- COVID-19 coronavirus most often causes a respiratory illness. The most common symptoms are cough and fever. Some patients progress to shortness of breath.
- Other common symptoms are chills, shivering (shaking), runny nose, sore throat, muscle pain, headache, fatigue, and loss of smell or taste.
- The CDC also includes the following less common symptoms: nausea, vomiting and diarrhea.
- Some people may have minimal symptoms or even have no symptoms (asymptomatic).

4. **COVID-19 - Exposure Risk Factors:**

- Here are the main risk factors for getting sick with COVID-19:
- Close contact with a person who tested positive for COVID-19 AND contact occurred while they were ill. Close contact is defined as being within 6 feet (2 meters) for a total of 15 minutes or more over a 24-hour period. Prolonged close contact would extend the risk to the 48 hours prior to the person becoming ill with symptoms. This includes living with someone infected with COVID-19.
- Living in or travel to an area where there is high community spread of COVID-19 also carries some risk.
- International travel: The CDC (<https://www.cdc.gov/coronavirus>) has the most up-to-date list of where COVID-19 outbreaks are highest.
- Not being fully vaccinated

5. **COVID-19 - How it is Spread:**

- COVID-19 is spread from person to person.
- The virus spreads when respiratory droplets produced when a person coughs, sneezes, sings or shouts. The infected droplets can then be inhaled by a nearby person or land on the surface of their face or eyes. Droplets fall quickly to the floor or ground. This is how most COVID is spread.
- Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on doorknobs, faucet handles etc. The virus then gets transferred to healthy people when they touch their face or rub their eyes. This is a less common cause of spread.
- These methods are how most respiratory viruses spread.
- Aerosols are tiny, invisible particles that can float in the air for 1 to 2 hours. They only occur in a closed room with poor ventilation. Aerosols are a rare cause of COVID-19 transmission (CDC and WHO). Evidence: within household units, only 30% of contacts get infected.

6. **COVID-19 - Travel:**

- Avoid all non-essential air travel.
- The Centers for Disease Control and Prevention (CDC) maintains a website with the latest recommendations regarding travel and your health.
- Currently, the CDC recommends against travel to any geographic areas with widespread and ongoing spread of COVID-19. See current list at <https://wwwnc.cdc.gov/travel>

7. **COVID-19 - Other Facts:**

- **Incubation Period:** average 5 days (range 2 to 14 days) after coming in contact with the secretions of a person who has COVID-19.

- **No Symptoms but Infected:** Over 30% of infected adult patients have no symptoms (asymptomatic patients). Children and teens are even more likely to have no symptoms. Such patients do however spread the disease and most develop protective antibodies (immunity).
- **Mild Infections:** 80% of those with symptoms have a mild illness, much like normal flu or a bad cold. The symptoms usually last 2 weeks.
- **Severe Infections:** 20% of those with symptoms develop trouble breathing from viral pneumonia. Many of these need to be admitted to the hospital. About 2% of children with COVID-19 need to be admitted to the hospital. Without vaccination, the hospital admission rate in teens is about 10% and about 3% require ICU care. (CDC). People with complications generally recover in 3 to 6 weeks. Severe infections are rare in people who are vaccinated.
- **Deaths:** Children generally have a mild illness and recover quickly. Pediatric deaths are very rare. (CDC) Older adults, especially those with chronic lung disease, heart disease, diabetes or weak immune systems, have the highest death rates. The overall death rate is around 6 per 1000 people. The risk of death is much lower in people who are vaccinated.
- **Vaccine:** Safe and effective vaccines are available. Some vaccines are 2 doses, given 3-4 weeks apart. Others are a single dose. Similar to flu shots, they will probably provide protection for 6 to 9 months. At this time, vaccines have been tested and are FDA approved for 12 years and older. Trials on children younger than 12 years have started (June 2021). Breakthrough cases are COVID-19 infections that bypass vaccine protection. They are rare and many are asymptomatic. The vaccine prevents almost all hospital admissions, ICU care and deaths.
- **Treatment:** New treatments for severe COVID-19 are available. They are mainly used on hospitalized patients and are given in a vein (IV).
- **Prevention:** The COVID-19 vaccine is the best way to prevent infections. Face masks, social (safe) distancing and extra handwashing are also proven to help prevent disease. The malaria drug (chloroquine) was studied and found not to be helpful for this disease and had side effects. A monoclonal antibody therapy has become available in the US for people 12 years and older at *high risk for severe disease* AND who have had a recent close contact exposure OR confirmed COVID-19 mild symptoms. It is usually given IV to prevent progression and complications. People hospitalized with COVID-19 are not eligible.

8. **Call Back If:**

- You have other questions

Multisystem Inflammatory Syndrome (MIS-C) Questions

1. **Multisystem Inflammatory Syndrome (MIS-C):**

- MIS-C is a very rare complication of COVID-19. In general, COVID-19 continues to be a mild disease in children.
- The most common symptoms are fever with red eyes, red lips, red palms and soles. Abdominal pain, vomiting and diarrhea also occur. Half of the patients develop trouble breathing.
- Onset of symptoms: Usually about 4 weeks after a COVID-19 infection and apparent recovery.
- Peak age: 8 years. Age range: 6 months to 21 years.
- Treatment: MIS-C is treatable with medications, including IV immune serum globulin.
- If a child gets this rare complication, a parent will know that their child needs to see a doctor. Patients with MIS-C need to be admitted to the hospital.
- Prevention: MIS-C cannot be prevented nor predicted. When approved for this age group, the COVID-19 vaccine will prevent MIS-C.

2. **Call Back If:**

- You have other questions

FIRST AID

N/A

BACKGROUND INFORMATION

Matching Pediatric Care Advice (PCA) Handouts for Callers

Detailed home care advice instructions have been written for this protocol. If your software contains them, they can be sent to the caller at the end of your call. Here are the names of the pediatric handouts that are intended for use with this protocol:

- COVID-19 - Exposure
- COVID-19 Prevention
- COVID-19 Vaccines - Answers to Common Questions
- Fever - How to Take the Temperature

COVID-19 Key Points

- COVID-19 stands for Coronavirus disease 2019.
- Cause: The name of the new virus is SARS-CoV-2.
- An outbreak of this infection began in Wuhan, China in early December 2019.
- The first COVID-19 patient in the United States was reported on January 21, 2020.
- The first COVID-19 patient in Canada was reported on January 31, 2020.
- The World Health Organization (WHO) declared COVID-19 a global pandemic on March 11, 2020.
- In the summer and fall of 2021, the Delta variant has become the most common COVID-19 variant.
- The Centers for Disease Control and Prevention (CDC) is considered the source of truth. This continues to be a rapidly changing situation and recommendations from the CDC are being updated daily. If the CDC recommendations are different than what is in this protocol, follow the CDC guidelines.
- See: <https://www.cdc.gov/coronavirus>

COVID-19 Main Symptoms (CDC)

COVID-19 should be suspected in people who have 1 or more of the following symptoms (CDC) and have not been vaccinated against COVID-19:

- Cough
- Shortness of breath (difficulty breathing)
- Fever or chills
- Loss of smell or taste
- Muscle or body aches
- Headache
- Sore throat
- Runny nose (not from allergies)
- Fatigue
- The CDC also includes the following less common symptoms: nausea, vomiting and diarrhea. In isolation, these symptoms (such as diarrhea) are not very helpful for recognizing COVID-19. Reason: Too common, multiple causes and sometimes subjective. For example, mild diarrhea is often caused by a change in the diet.
- **"COVID Toes"**: Reddish or purple toes have been reported as a rare finding. They can occur alone and go away without treatment. Or they can occur 1-2 weeks after the more common symptoms.
- **Long-Haul Symptoms**: Have been reported in some children after hospitalization with severe infections. Main symptoms are fatigue, brain fog, muscle pains and joint pains. Up to 2% have symptoms beyond 8 weeks.

Multisystem Inflammatory Syndrome (MIS-C)

- MIS-C is a rare and sometimes severe complication associated with COVID-19. The most common symptoms are fever with red eyes, red lips, red palms and soles. Abdominal pain, vomiting and diarrhea also occur. Half of the patients develop trouble breathing and shortness of breath. Always has multiple symptoms. All patients with suspected of having this syndrome should be seen by a doctor. Most need to be admitted to the hospital. Some cases are similar to Kawasaki's Disease (KD), but MIS-C is a more serious condition.
- Incidence: a very rare complication of COVID-19. In general, COVID-19 continues to be a mild disease in most children.
- Onset of symptoms: Usually about 4 weeks after COVID-19 infection and apparent recovery.
- Peak age: 8 years. Age range: 6 months to 21 years.
- Treatment: MIS-C is treatable with medications, including IV immune serum globulin (ISG). At this time, it cannot be prevented nor predicted.
- Reassurance: If a child gets this rare complication, a parent will know that their child needs to see a doctor.
- Outcomes: death rate is 10-29%. A shorter duration of symptoms before admission was associated with worse outcomes.
- Prevention: MIS-C cannot be prevented nor predicted. When approved for this age group, the COVID-19 vaccine will prevent MIS-C.

Child Abuse During the COVID-19 Pandemic

- Social isolation combined with the financial crisis has caused unremitting stress for many parents.
- Young children often become irritable and demanding when confined to the home.
- These factors have increased the rate of angry outbursts and child abuse.
- Triggers need to be alert for calls about bruises or other injuries that are suspicious, unexplained or occur in the first year of life.
- They also need to offer help to families in crisis before they reach the breaking point. Be prepared. Know where to refer at-risk families.
- National Alliance on Mental Health (NAMI) Helpline: 1-800-950-6264. This is an information and referral source for locating community mental health programs.
- Domestic Violence Hotline: 1-800-799-7233
- Child Abuse: Call the Child Abuse Reporting Hotline in the county where the child lives. The number can also be obtained by calling 911.
- See the Psychosocial Problems or Child Abuse protocols for details.

Animals and COVID-19

- The main way COVID-19 spreads is from person to person. There is low risk of getting COVID-19 from a pet or other animal.
- It is possible for animals to catch COVID-19 from people. A few pets have tested positive for COVID-19 (including cats and dogs).
- The CDC recommends treating pets like other family members when trying to avoid spreading COVID-19. Do not let pets have close contact with other people or animals outside your household. A sick person should self-isolate and avoid contact with both people and pets.
- Call your vet if your pet gets sick or you have other questions.
- The CDC has more information on COVID-19 and animals at: <https://www.cdc.gov/coronavirus>

COVID-19 Disease and Repeat Infections

- Most viral infections cause our immune system to create antibodies that protect us from getting that infection again.
- Sometimes this provides lifelong protection, but sometimes that protection only lasts months or years.
- **Protection Duration.** Research about how long protection against COVID-19 lasts is ongoing.

Protection has been proven to last for at least 90 days (3 months) after infection. The CDC recommends using 90 days post exposure as a protected period.

- For now, it remains important for people who have recovered from COVID-19 infections to be careful. Take normal precautions such as wearing a mask and social distancing.
- **Need for Vaccine.** People who have recovered from COVID-19 should get a COVID-19 vaccine. Vaccination will provide more reliable protection beyond the protection provided after a COVID-19 infection.
- **Recovery and Re-infections.** Re-infections after full recovery do occur. The arrival of COVID-19 variant (mutant) viruses has increased the rate of re-infections for some of the variants.
- **Vaccines and Re-infections.** Currently available COVID-19 vaccines still protect against most of the COVID-19 variants. Even when they don't, they usually protect against severe disease and the need for hospitalization.
- Modified vaccines are being developed to provide more targeted protection against COVID-19 variants.

COVID-19 Vaccines - Answers to Common Questions

- **Vaccine Efficacy:** All the vaccines approved by the FDA for use in the US are highly effective at preventing COVID-19. The protection against getting the new variants have gone down some, but most people have mild symptoms or none. The vaccines continue to prevent serious symptoms, complications and the need for hospital or ICU admission, even for the variants. They are much more effective than flu vaccines.
- **Other Major Benefits:** Vaccines also prevent the rare serious delayed onset complications from COVID-19 infections that can occur in some unlucky people. One example is multisystem inflammatory syndrome in children (also called MIS-C). Another is "long hauler" symptoms (such as brain fog or chronic breathing problems). Key: Vaccines prevent death from COVID-19 infections.
- **Vaccine Safety:** Very safe. Most people get a sore arm for a few days. About half get some general symptoms for about 24 hours, such as feeling tired and achy. A smaller number have a fever. These are the normal side effects seen with most vaccines and they go away quickly. They show your immune system is working. Serious reactions are extremely rare.
- **Blood Clot Concerns:** Very rare. Occur in about 1 person per million vaccinated people. Blood clots occur much more commonly in people who get the natural COVID-19 infection. (Note: have NOT occurred with Moderna or Pfizer vaccines)
- **Myocarditis Concerns:** Myocarditis is inflammation of the heart muscle. Main symptoms are chest pain and shortness of breath. Very rare side effect of the COVID-19 vaccines. Occurs in about 6 per million vaccinated people. Mainly in teen or young adult males. The symptoms are usually mild and go away quickly. Myocarditis occurs much more commonly in people who get the natural COVID-19 infection. Plus it is more severe in them. (CDC June 2021)
- **Best Vaccine:** Any vaccine approved by the FDA is highly effective and safe. Get the first one that becomes available to you, the caller. They will protect you and your family.
- **Start of Vaccine Protection:** Full protection is reached about 2 weeks after you complete the vaccine series.
- **Duration of Vaccine Protection:** Research data has confirmed that protection is still high at 6 months after completing the vaccine series (April 2021). Experts predict the protection may last for 12 months or longer, but we need to wait for more data.
- **Booster Shots:** Experts predict we may need them yearly, just like flu vaccine boosters. Ongoing studies will tell. The CDC now recommends a booster shot for people with weak immune systems. (August 2021).
- **COVID-19 Variants and Vaccine Protection:** For now, the current vaccines protect against the current variants in the US. The vaccinated person usually does not get infected. If they do, they develop either a mild illness or an asymptomatic infection. They are protected against serious symptoms and any complications. By contrast, natural immunity does not protect against some of the variants.
- **Re-infections:** Reinfections can occur after natural infections. Vaccination provides much better protection against future infections.

- **Quarantine after Exposure:** If you are vaccinated and 2 weeks have passed since your final dose, you do not have to quarantine for 10 days after close contact with a COVID-19 infected person. However, fully vaccinated people should get tested 3 to 5 days after an exposure to COVID-19. You should also wear a mask (for 14 days) when you are around other people or until you know that your test result is negative.

COVID-19 Vaccines: Special Patient Questions

- **Children and Teens:** Currently approved for 12 years and older. Results: strong protection and also safe (normal side effects). Trials on children younger than 12 years have started (June 2021). Importance: while most children have mild or asymptomatic infections, they can get rare complications such as MIS-C. Also, they can innocently transmit the disease to others.
- **Pregnant Women:** Vaccines are approved and safe.
- **Breastfeeding Mothers:** Vaccines are approved and safe. Studies show that breastmilk passes antibody protection against COVID-19 to the baby.
- **Underlying High Risk Conditions:** Vaccines are approved and safe. These patients need the vaccine protection the most. If you have questions about a specific condition, discuss with your doctor.
- **Person Already had the Disease:** Get the vaccine. It provides higher levels of antibodies and better protection than the natural disease. Restriction: not approved until you are over any acute symptoms and the 10 days of isolation have passed.
- Go to CDC website for other questions: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines>.

Office Call Surges: How to Better Manage

Getting behind in responding to calls is always a problem during infection outbreaks or panic created by the media. The COVID-19 pandemic caused major surges in call volumes. Here are some suggestions for off-loading calls:

- Refer callers to the American Academy of Pediatrics parent website: www.healthychildren.org while they are waiting for a callback. The answer to their questions will likely be found there.
- The website contains numerous articles written for parents on every COVID-19 issue. Examples are masks, getting outside, breastfeeding, dealing with anxiety, etc.
- Every topic is available in both English and Spanish.
- Your favorite COVID-19 handouts from the AAP or CDC can be emailed or texted to parents directly or using your EHR portal.
- The AAP website also features a Pediatric Symptom Checker. It helps a parent self-triage. It also provides self-care advice if they don't need to be seen. In addition to 160 other symptom topics, it contains 2 COVID-19 self-triage guides.
- Changing Parent Behavior: During a major pandemic, encourage parents to use a pediatric symptom checker before calling. Result: Parents would only call about patients who might need to be seen or need testing.

Internet Resources

- Centers for Disease Control and Prevention (CDC): Coronavirus. <https://www.cdc.gov/coronavirus>.
- Public Health Agency of Canada: <https://www.canada.ca/en/public-health/services/diseases/coronavirus.html>.
- World Health Organization (WHO): Coronavirus. <https://www.who.int/health-topics/coronavirus>.
- American Academy of Pediatrics: <http://www.healthychildren.org>

Expert Reviewers

- Jessica Cataldi, MD, Pediatric Infectious Diseases and Epidemiology, Children's Hospital Colorado, Aurora, Colorado
- Samuel Dominguez, MD, Pediatric Infectious Diseases and Epidemiology, Children's Hospital

Colorado, Aurora, Colorado

- Lisa M. Koonin DrPH, MN, MPH; Founder, Health Preparedness Partners; Pandemic preparedness specialist
- The author is extremely grateful for these critical reviews.

REFERENCES

1. Alramthan A, Aldaraji W. A case of COVID-19 presenting in clinical picture resembling chilblains disease. First report from the Middle East. *Clin Exp Dermatol* 2020 Aug;45(6):746-748.
2. Bautista-Rodriguez C, Sanchez-de-Toledo J, Clark BC, et al. Multisystem Inflammatory Syndrome in children: An international survey. *Pediatrics* 2021 Feb;147(2):e2020024554.
3. Castagnoli R, Votto M, Licari A, et al. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infection in Children and Adolescents: A Systematic Review. *JAMA Pediatr.* 2020 Sep 1;174(9):882-889.
4. CDC COVID-19 Response Team. Coronavirus Disease 2019 in Children - United States, February 12 - April 2, 2020. *MMWR Morbidity and Mortality Weekly Report.* ePub: 6 April 2020.
5. Chung E, Chow EJ, Wilcox NC, et al. Comparison of Symptoms and RNA Levels in Children and Adults With SARS-CoV-2 Infection in the Community Setting. *JAMA Pediatr.* 2021 Jun 11.
6. De Rose DU, Piersigilli F, Ronchetti MP, et al. Novel coronavirus (COVID-19) in newborns and infants. *Ital J Pediatr.* 2020 Apr 29;46(1):56.
7. DeLaroche AM, Rodean J, Aronson PL, et al. Pediatric Emergency Department visits at US Children's Hospitals during the COVID-19 pandemic. *Pediatrics.* 2021 Apr;147(4):e2020039628.
8. Dionne A, Sperotto F, Chamberlain S, et al. Association of Myocarditis With BNT162b2 Messenger RNA COVID-19 Vaccine in a Case Series of Children. *JAMA Cardiol.* 2021 Aug 10.
9. Dufort EM, Koumans EH, Chow EJ, et al. Multisystem Inflammatory Syndrome in children in New York state. *N Engl J Med.* [published online ahead of print, 2020 Jun 29]
10. Feldstein LR, Rose EB, Horwitz SM, et al. Multisystem Inflammatory Syndrome in U.S. children and adolescents. *N Engl J Med.* [published online ahead of print, 2020 Jun 29].
11. Fouda GGA, Kwiek JJ, Yotebieng M. Safety of breastfeeding by mothers with COVID-19: New evidence from Israel. *Pediatrics.* 2021 Apr 13;e2020049772.
12. Hatoun J, Correa ET, Donahue SMA, et al. Social distancing for COVID-19 and diagnoses of other infectious diseases in children. *Pediatrics.* 2020 Oct;146(4):e2020006460.
13. Humphreys KL, Myint MT, Zeanah CH. Increased risk for family violence during the COVID-19 pandemic. *Pediatrics.* 2020 Jul;146(1):e20200982.
14. Kainth MK, Goenka PK, Williamson KA, et al. Early experience of COVID-19 in a US children's hospital. *Pediatrics.* 2020 Oct;146(4):e2020003186.
15. King JA, Whitten TA, Bakal JA, et al. Symptoms associated with a positive result for a swab for SARS-CoV-2 infection among children in Alberta. *CMAJ.* 2021 Jan 4;193(1):E1-E9.

16. Laws RL, Chancey RJ, Rabold EM, et al. Symptoms and transmission of SARS-CoV-2 among children - Utah and Wisconsin, March-May 2020. *Pediatrics*. 2021 Jan;147(1):e2020027268.
17. Lu X, Zhang L, Hui, D, et al. SARS-CoV-2 Infection in children. *N Engl J Med*. 2020 Apr 23;382(17):1663-1665.
18. Ludvigsson JF. Systematic review of COVID-19 in children shows milder cases and a better prognosis than adults. *Acta paediatrica*. March 2020. doi:10.1111/apa.15270.
19. Marshall M, Ferguson ID, Lewis P, et al. Symptomatic acute myocarditis in seven adolescents following Pfizer-BioNTech COVID-19 vaccination. *Pediatrics*. Published online June 4, 2021; e2021052478.
20. Mithal LB, Machut KZ, Muller WJ, et al. SARS-CoV-2 infection in infants less than 90 days old. *J Pediatr* 2020 Sep;224:150-152.
21. Muchmore B, Muchmore P, Lee CW, et al. Tracking potential COVID-19 outbreaks with influenzalike symptoms urgent care visits. *Pediatrics*. 2020 Oct;146(4):e20201798.
22. Ouldali N, Yang DD, Madhi F, et al. Factors associated with severe SARS-CoV-2 infection. *Pediatrics* March 2021,147 (3) e2020023432.
23. Parri N, Lenge M, Buonsenso D; et al. Children with Covid-19 in Pediatric Emergency Departments in Italy. *N Engl J Med*. 2020 Jul 9;383(2):187-190.
24. Paules CI, Marston HD, Fauci AS. Coronavirus infections - more than just the common cold. *JAMA*, Published online January 23, 2020.
25. Ruiyun Li, Sen Pei, Bin Chen, et al. Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV2). *Science* 10.1126/science.abb3221 (2020)
26. Shekerdemian LS, Mahmood NR, Wolfe KK, et al. Characteristics and outcomes of children With Coronavirus Disease 2019 (COVID-19) infection admitted to US and Canadian pediatric intensive care units. *JAMA Pediatr*.2020 Sep 1;174(9):868-873.
27. Shlomai NO, Kasirer Y, Strauss T, et al. Neonatal SARS-CoV-2 infections in breastfeeding mothers. *Pediatrics*. 2021 May;147(5):e2020010918
28. Song W, Li J, Zou N, et al. Clinical features of pediatric patients with coronavirus disease (COVID-19). *J Clin Virol*. 2020 Apr 24;127:104377.
29. Su L, Ma X, Yu H, et al. The different clinical characteristics of corona virus disease cases between children and their families in China - the character of children with COVID-19. *Emerging Microbes and Infection* 2020; 9(1): 707-13.
30. Tagarro A., Epalza C., Santos M., et al. Screening and severity of Coronavirus Disease 2019 (COVID-19) in children in Madrid, Spain. *JAMA Pediatr*. 2020 Apr 8:e201346.
31. Wong CA, Ming D, Maslow G, et al. Mitigating the impacts of the COVID-19 pandemic response on at-risk children. *Pediatrics*. 2020 Jul;146(1):e20200973.
32. Zheng F, Liao C, Fan QH, et al. Clinical Characteristics of Children with Coronavirus Disease 2019 in Hubei, China. *Curr Med Sci*. 2020 Apr;40(2):275-280.

AUTHOR AND COPYRIGHT

Author: Barton D. Schmitt, MD, FAAP
Copyright: 1994-2021, Schmitt Pediatric Guidelines LLC All rights reserved.
Company: Schmitt-Thompson Clinical Content
Content Set: Office Hours Telehealth Triage Protocols | Pediatric
Version Year: 2021
Last Revised: 9/1/2021
Last Reviewed: 8/31/2021